Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

KHILS FACILITY TRANSITIONS INFRARED SCENE PROJECTION SYSTEMS

The ability to evaluate the performance of infrared-guided munition seekers with dynamic imagery at multiple Department of Defense facilities will greatly enhance the development of future munitions while reducing the cost of test and evaluation.

Air Force Research Laboratory
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Accomplishment

The Munitions Directorate is transferring a new generation of infrared scene projector systems to a number of government facilities. These devices are key components necessary to provide accurate dynamic imagery for missile seeker, hardware-in-the-loop testing. These systems enable greatly improved operation of both the Honeywell and Santa Barbara Infrared, Inc. emitter arrays under development at the directorate's Kinetic Kill Vehicle Hardware-in-the-Loop Simulator (KHILS) facility for the last decade.

Background

KHILS teamed with seven agencies on the project to fund the development, design, and fabrication of the custom electronics called the personal computer-based array control electronics (PACE). The team included the Missile Defense Agency's Ground-based Midcourse Defense 10V Team, the Air Force's Electronic Warfare Evaluation Simulator facility and Guided Weapons Evaluation facility, the Sensor Directorate's Dynamic Infrared Missile Evaluator facility, the Naval Air Warfare Center's Aircraft Division, the Defense Investigative Agency's Missile and Space Intelligence Center, and the US Army's Space and Missile Defense Command upgrade at Arnold Engineering Development Center's Decade facility.

Over 20 projection systems are in varying stages of fabrication. Many of these systems include both emitter arrays from residual directorate contracts with Honeywell and the new PACE electronic drive systems. Besides transition to government facilities, the directorate recently transferred PACE systems to industry in support of contracts developing next-generation emitter arrays.

Munitions
Technology Transfer

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-MN-05)